

REMARKS

The undersigned would like to thank the examiner for a telephonic interview on 20 April 2004 to clarify the 112 issues in the Office Action of 1 April 2004. A summary of the interview was mailed on 27 April 2004. A second telephonic interview was held on 10 June 2004 to consider a proposed amendment after final. A summary of that interview was mailed on 15 June 2004.

Claims 11-24 Are Pending

The rejection of the claims under 35 U.S.C. §112, second paragraph is submitted to be moot in view of the present amendment.

Claims 11, 12, 18, 21, 22, 23, and 24 have been amended to remove the overlap between components c) and d). The amendment also eliminates any possible overlap between any of the elements of component a) with component c) or d). There is no overlap in components with regard to element b) since the element is a water-soluble N-free, biologically decomposable organic compound and not a salt of an organic compound.

In addition, claim 12 has been amended in accordance with the telephonic interview to clarify component a). Finally, claims 21 and 22 have also been clarified by inserting the complete Markush language for the components of claims 21 and 22.

Reconsideration is respectfully requested of the rejection of the claims under 35 U.S.C. 103 as allegedly obvious over newly cited references WO 97/34838 which corresponds to U.S. Patent 6,477,982 (hereinafter the '982 patent) and WO 97/08960 which corresponds to U.S. Patent 6,306,453 (hereinafter the '453 patent) and further in view of previously cited German application 29617181 and/or German application 19704953.

The present invention provides a unique approach in a multi-component composition for the prolongation of water exchange-free intervals in biological maintenance systems. The present invention uses ecologically neutral, chemically- and microbiologically-active water additives. The present composition provides an environmentally safe water system for fish in aquariums, garden ponds, and the like, where frequency of changing the water is prolonged. The

present composition when tested in a water system maintained the required limitations for fish to an extent where the water exchange free period was enhanced to 9 to 12 months. (See p. 29 of Applicant's specification).

The present invention is a unique system which uses microorganism activity in aquariums and garden ponds for improving the quality of water. The present invention combines particular inorganic cations with organic acid radicals to form salts and feed these salts to the microorganisms in the filter material or in the bottom ground in order to let the microorganisms decompose the organic parts of the salts. Thus, the decomposed salts or organic complex salts change their properties by forming precipitates and releasing carbon dioxide. The released carbon dioxide is beneficial and influences the hardness of the water as well as also being useful as a fertilizer for watering plants. The benefits of each ingredient in the present invention is pointed out in the specification. In addition to producing carbon dioxide as a beneficial component, particularly important are the removal of phosphates and nitrates by the use of the present composition. (See pages 3-5 of Applicant's specification).

The '838 PCT application which corresponds to the '982 U.S. patent to Ritter appears to be more relevant with regard to the rejection. The examiner stated in the office action with regard to this reference:

While the water treatment composition of Warner-Lambert Company '838 may not contain Mg and/or Al-citrate or vitamins, it would have been obvious to one skilled in the art at the time applicant's invention was made to incorporate one or both of Mg and Al-citrate and vitamins into the water treatment composition of Warner-Lambert Company '838 to contribute their pH stabilizing and/or buffering effects and vitamins as anti-stress agents in view of the teachings and/or to replace the Ca:Mg ratio taught to be often absent in tap or drinking water.

The examiner's statement appears to minimize the need for aluminum ions or other components for a) in the claims by this statement. This is contrary to the present invention. The '982 patent does not teach or suggest sophisticated biological/chemical precipitation or CO₂-releasing reaction, starting with a partly biological degradation of a soluble additive, which for example removes the organic part of a salt and makes the remaining cation insoluble by forming a phosphate with the soluble phosphates that must be removed from the aquarium water. The reaction causes precipitation of the undesired material within the filter material or the bottom

ground with the unexpected result that despite this precipitation, the water remains clear even during the precipitation process. Furthermore, the combination of several degradable additives in this manner results in the coincidental removal of other unwanted material from the aquarium water such as nitrates in the production of CO₂.

The '982 patent does not address components a) as claimed. The '982 patent does not suggest component b) as nitrogen-free material. In contrast, nitrogen materials are included in the '982 patent. It is acknowledged that sugars and organic carboxylic acids can be present and further it is noted that some magnesium salts of organic carboxylic acids are provided in the reference. Nevertheless, the present composition as claimed and its purpose and properties are distinct from the '982 patent. The '982 patent is teaching the use of natural ingredients or components instead of synthetic materials and additives in aquarium water.

The second PCT reference cited corresponds to the '453 patent and is respectfully submitted to be irrelevant to the present invention. The patent describes anti-stress agents for improving the resurgence of aquatic animals in sea and fresh water. The composition includes a combination of vitamins and one or more immune stimulators. Although the present invention employs vitamins in component e), the present invention and the '453 are totally distinct in composition, properties and purpose.

German patent 29617181 describes improving aquarium water with natural means for inducing chlorine and other active chlorine compositions and with hydro- and/or bio-colloids. The reference does not address the problems solved or the composition employed by the present invention. The combination of this reference with the '982 and/or '453 patents does not fill the void of the present invention as claimed.

The second German reference 19704953 is also different from the present invention since it describes a two-component flocculant agent for cleaning an aquarium that is clouded by algae or extreme amounts of unicellular organisms. This reference in combination with the primary references also does not fill the void of the present invention.


For the foregoing reasons, the examiner's rejection under 35 U.S.C. §103 is unwarranted and should be withdrawn.

The limitations of scope in component d) in claim 11 which is similar to claim 12 should place claim 17 (formerly claim 5) allowable as indicated in the first office action.

It is respectfully submitted that the present amendment places the claims in condition for allowance; prompt passage to issue is earnestly solicited.

Respectfully submitted,

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